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STUDY GEOMORPHOLOGY, PAST AND PRESENT, LINEAR TRENCH, TECTONICS RELATIONSHIP BETWEEN PYRENEES AND ALPS

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15. Abstract

The aim of PYRALP is a geological study of relations between two mountain ranges Alps and Pyrenees. The five images received are not yet sufficient to carry an complete the project but reveal some new facts and permit a good working out of investigating methods.

SUMMARY OF TYPE 1 OF REPORT FOR JUL - DEC. 72

MINERAL RESOURCES, GEOLOGICAL STRUCTURE AND LANDFORM SURVEYS.

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The aim of PYRALP is a geological study of relations between two mountain ranges Alps and Pyrenees. The five images received are not yet sufficient to carry an complete the project but reveal some new facts and permit a good working out of investigating methods.

Because of the delay inthe delivery of the photos, we have had time to make only a very quick examination of them.

The geological structure stands out quite clearly, at least in the less tectonically complex areas.

Fracture lines that do not appear on delaited geological maps are visible in the metamorphic massif (1061-10015).

An interpretation drawing is in the process of being compiled on enlargements so as to compare them with published geological maps.

Optical filtering tests for the purpose of bringing out the major fracture trends are planned within the next few weeks.

However, whereas the Rhone valley is almost enirely covered by photos 1061-10015, 1061-10022 and 1060-09561, there is no photo of the eastern Pyrenees.

Investigating methods can be worked out, but the main objective of the projet can be attained only when the coverage is more complete.

A - DATA RECEIVED

On November 20, date of report's writing the following images were received.

1) Directly for PYRALP (009-03) project.

Date of receipt	Date	Image I D	Products	Number
10.25.72	Sept. 19	1058 - 09450	70 mm Neg. 4, 5, 6, 7 9,5 prints 6	1 1 1 5
11.17.72	Sept. 20	1059 - 09500	70 mm Neg. 4,5,6,7 9,5 prints 6	1 1 5 1
11.17.72	Sept. 21	1060 - 09554	70 mm Neg. 4, 5, 6, 7 9,5 prints 6	1 5
11.17.72	Sept. 21	1060 - 09561	9,5 prints 6	5.

2) Through POLUMER (009-02) and GOLION (009-01) projects:

Images I D	Products	Number	
1060 - 09561	9,5 prints 4,5,7	· 1	
1061 - 10015	9,5 prints 4,5,6,7	1	
1061 - 10022	9,5 prints 4, 5, 6, 7	1	

REMARKS: 70 mm negatives of 1058-09450 are very overexposed and not usable;
70 mm negatives of 1059-09500 and 1060-09554 are overexposed but usable.

B - POSITION OF THE IMAGES AND SHORT GEOGRAPHICAL DESCRIPTION

- 1058-09450 is in the margin of the polygon of interest. It covers a small part of the south-eastern Alps (France and Italia) on both sides of the mouth of the Var river. The greatest part of the area is in the sea. In the south east angle of the photographs is a small part of the Corse island.
- 1050-09500 is in the northern margin of the polygon but more than a half lies in the polygon. It represents a part of the north western Alps in Switzerland, Italia and France.

Main geographical features :

- Mountains : Mont Blanc, Mont Rose, Gran Paradisio, Jungfrau;

- Lakes : Lake Maggiore

Thunersee

Leman lake (eastern half)

 $$\operatorname{More}$$ than 40 % of the area is snow covered. Cloud cover is less than 5 % .

- 1060-09554 - is in the northern margin of the polygon; more than one half is into it. It represents the north western Alps in Switzerland and France and the southern half of the Jura mountain.

Main geographical features:

- Mountains: Mont Blanc, Vanoise, Belledonne, Prealpes (Chablais, Bauges, Chatreuse, Vercors), Jura;

- Rivers: Rhone upstream and down stream of Leman lake, Ain river,
Isere river

- Lakes : Leman lake, Bourget lake, Annecy lake;

- Towns : The town of Geneva is clearly seen, the center of Lyon is just in the south western border of the image.

About 10 % of the area, higher than 2000 m in altitude is snow covered. Less than 10 % is cloud covered.

- 1060-09561 - is near the margin of the polygon of PYRALP project. Most of the area is in the french south western "prealpes" with the north-south Rhone valley in the west.

Main geographical features:

- Mountains: Pelvoux, Prealpes (Vercors, Diois, Baronnies, Digne mountains, Ventoux, Montagne de Lure), south eastern "Massif central français";

- Rivers: Rhone down stream of Lyon, Isere river, Durance river;

- Lake : dam reservoir of Serre Ponçon;

- Towns : Grenoble, Valence.

Area more than 2000 m in altitude in snow covered (less than 5%). 15% of the area, mainly in the southern part is cloud covered.

- 1061-10015 - is in the center of the polygon of PYRALP area. It represents mainly the south eastern part of the french "Massif central" and the southern part of the Rhone valley between Valence and Arles situated in the upper Rhone delta.

25% of the area is cloud or fog covered.

- 1061-10022 - is in the southern margin of the polygon. The main feature is the Rhone delta and the Gulf of Lion coast.

More than 70 % of the area is in the sea, and clouds cover more than 60 % of the area.

C - ACCOMPLISHMENTS AND PLANNING

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